

**Title:** The relationship between BMI and dental caries of permanent first molars in children 6-12 years of Ardabil.

## **Abstract**

**Introduction:** Childhood dental problems interfering with feeding has an effect on 1. Growth 2. Talking 3. communicate with other children adversely leaves.

However, the link between obesity and tooth decay, requires a lot of study of the etiology of both is rooted in several factors, such as the human life style like 1. Negative changes in nutritional 2. Reduced physical activity pattern 3. Increased consumption of fast foods. Yeasts have increased consumption of carbohydrates and the decay of these factors also contribute Obesity and its lead to Consequences such as loss of permanent teeth.

The present study investigated the association between BMI and dental caries in permanent first molars in children 6-12 years old in the city of Ardabil.

**Methods and materials:** Type of study is descriptive - cross sectional male and female students in the target group of public and private schools in urban areas of Ardabil were selected. For assessment of caries and DMFT index according to WHO criteria were used to assess the children's physical BMI ( $\frac{Kg}{m^2}$ ). Data were analyzed using SPSS software and to evaluate the caries index DMFT, dmfs the mirror and disposable catheters and probes were used in the sun.

**Findings:** 309 samples were randomly collected. The survey showed that 92.9 percent of children have a BMI in the normal range, 6.2% and 0.8% were obese and overweight. We found that 37% of the Study population had dental caries. 14 percent of boys and 20 percent girls 88% of children are brushing at least once a day, but 12% of children do not brush at all.

**Result:** According to results of this Study, possible association between dental caries in permanent first molars and body mass index (BMI) among, children was rejected. ( $P < 0.05$ )

**Keywords:** Dental caries, obesity, caries prevalence, body mass index